Nancy Ouyang

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EDUCATION

Massachusetts Institute of Technology

Bachelor of Science degree in Mechanical Engineering

June 2013

INDUSTRY EXPERIENCE

Harvard Personal Genome Project – *Staff*

Jul – Dec 2015

Created new phenotype survey, provided technical support to researchers from other institutions.

Curoverse – Researcher (under Alexander Wait Zaranek)

Sep 2014 – Dec 2015

Created open source genomics web applications in Python, initiated customer research interviews, presented to Global Alliance for Genomics and Health, ran non-credit month-long genomics class.

Essess, Inc. – *Contractor*

Oct - Dec 2014

Wrote several Robot Operating System (ROS) to Arduino serial drivers for lux and other sensors.

MIT Office of Digital Learning – *Contractor (under Isaac Chuang)*

Jan - May 2014

With NarwhalEdu cofounder, took on contract work to investigate replacing the \$5k robots in MIT's introductory EECS class with \$200 robots that we prototyped.

NarwhalEdu – Founder

Jun 2013 – Sep 2014

Accepted to Global Founder's Skills Accelerator 2013. Designed drawing robot arm kit and complementary online curriculum as an introduction to engineering EdX class. Reached close to 100 students with over \$20k of sales in our first year. See: <u>Kickstarter</u> & <u>Edx</u>.

RESEARCH EXPERIENCE

MIT Media Lab, Opera of the Future Group

Jun – Jul 2011

Undergraduate Researcher (under Tod Machover)

Designed mechanical molds project turning everyday objects into percussive instruments.

PUBLICATIONS

Guthrie, S., et al. <u>Tiling the genome into consistently named subsequences enables precision medicine</u> <u>and machine learning with millions of complex individual data-sets</u>. (2015). PeerJ PrePrints 3:e1426v1; doi.org/10.7287/peerj.preprints.1426v1

Novak, B., et al. Genome Graphs. (2017). bioRxiv 101378; doi.org/10.1101/101378

TEACHING EXPERIENCE

MIT International Design Center – *Recitation Instructor (under Charles Guan)* Jun – Jul 2013 Assisted teaching a class where students from the Singapore University of Technology and Design spent six weeks designing and building their own electric go-kart to race at the end of the summer.

LEADERSHIP

MIT Electronics Research Society – President

Feb 2012 – Feb 2013

A member-run machine shop and makerspace at MIT. Started and led student project grants and peer-to-peer workshop and seminar series.